

ABSTRACT

The invention provides an apparatus and method for efficiently analyzing nitropolycyclic aromatic hydrocarbon contained in diesel particulates.

The invention comprises a step of extracting soluble organic fraction from diesel particulates contained in the exhaust of a diesel engine using a solvent, a step of concentrating and drying the extraction obtained by the extraction step, and a step of separating and extracting the solution via high-performance liquid chromatograph, wherein the separation step via the high-performance liquid chromatograph comprises a separation step using a silica gel/C8 column, a reduction step using an alumina/Pt-Rh reduction column, and a separation step using an ODS column, and further comprises a subsequent step of quantifying the nitropolycyclic aromatic hydrocarbon using a fluorescence detector.